The Effect of a Multifaceted Reminder Intervention on Nursing Documentation Completeness

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Significance
- Nurses working in acute care areas report spending up to 50% of their shift documenting (Blair & Smith, 2012).
- According to Grazia De Marinis et al. (2010), consistency between nursing documentation and actual nursing activities performed approximates 47%.
- Literature has shown widespread incompleteness of nursing documentation in the wound characteristics and pressure ulcers (Jeffries et al., 2010; Grazia De Marinis et al., 2010; Wang et al., 2011).
- Inaccurate or incomplete charting can lead to a loss of reimbursement for wounds that were actually present on admission, but not documented.
- The care for a stage III or IV pressure ulcer can exceed $43,000 per hospitalization (Kurtzman & Buerhaus, 2008).

Evidence

- **Keywords**: visual reminder*, reminder*, reminder systems, documentation, nursing documentation, documentation compliance
- **Literature Search**: Joanna Briggs Institute (39), Cochrane Library (35), CINAHL (84), MEDLINE (15), and ProQuest (235)
- **Inclusion Criteria**: (a) published works taking place in inpatient settings, (b) studies or projects that at least one goal was to improve the quality of nursing documentation in some area, (c) interventions or studies targeted toward utilization by any healthcare interdisciplinary team member that provided direct patient care, and (d) reminders that were passive
- **Exclusion Criteria**: (a) studies or intervention that utilized hard-stops as reminders and (b) documentation that was exclusively completed via dictation

Synthesis

- Nine articles met inclusion and exclusion criteria: 8 level IV pieces and 1 level VI based on Melnyk and Fineout-Overholt's evidence hierarchy
- All articles were graded “B” (good quality) or higher based on the Johns Hopkins Nursing Evidence-Based Practice Research and Non-Research Evidence Appraisal tools
- The critically appraised literature evaluated increases in nursing documentation compliance, revealed comparable findings and recommendations, and provided and good quality of evidence demonstrating the effectiveness of using visual reminders combined with education to improve nursing documentation completeness.

Best Practice Model

- The best practice model consisted of a multifaceted approach including (a) a visual reminder and (b) an educational component for nursing staff.
- The need for the project stemmed from the noteworthy occurrences of HAPUs on the unit paired with consistently suboptimal HAPU audit scores of below 90% compliance.
- Brightly colored visual reminders were placed on each computer used for nursing documentation and changed to a new color each month.
- The staff was educated how to document each element of the HAPU audit and its significance using a 20-minute PowerPoint presentation pre-intervention.
- The EBP project manager attended monthly unit meetings to remind staff and provide progress updates.
- Retrospective audit data was averaged from May, June, and July of 2015 and compared to the average post intervention implementation period of September, October, and November of 2015.

Primary Outcomes

<table>
<thead>
<tr>
<th>Audit Components</th>
<th>Pre-Intervention</th>
<th>Post-Intervention</th>
<th>Significance (p &lt; .05)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Body Assessment on Admissions and Transfers</td>
<td>95%</td>
<td>90%</td>
<td>(p = .000)</td>
</tr>
<tr>
<td>Second Nurse Co-Sign of Assessment on Admission</td>
<td>70%</td>
<td>72%</td>
<td>(p = .424)</td>
</tr>
<tr>
<td>Oxygen in Use with Delivery Method Documentation</td>
<td>83%</td>
<td>83%</td>
<td>(p = 1.000)</td>
</tr>
<tr>
<td>Ear Protectors Applied and Documented</td>
<td>85%</td>
<td>77%</td>
<td>(p = .000)</td>
</tr>
<tr>
<td>Documentation of Patient Turned Every 2 Hours</td>
<td>98%</td>
<td>98%</td>
<td>(p = 1.000)</td>
</tr>
<tr>
<td>Braden Scale on Admission and Every Shift</td>
<td>89%</td>
<td>97%</td>
<td>(p = .000)</td>
</tr>
<tr>
<td>Wound Nurse Consult for Braden &lt;14</td>
<td>93%</td>
<td>93%</td>
<td>(p = 1.000)</td>
</tr>
<tr>
<td>Wound Prevention Supplies in Room and in Use With Documentation</td>
<td>92%</td>
<td>95%</td>
<td>(p = .002)</td>
</tr>
<tr>
<td>Documentation of Skin Condition Behind Ears</td>
<td>80%</td>
<td>78%</td>
<td>(p = .424)</td>
</tr>
<tr>
<td>WDLA Documented for Each Wound and RCR Completed</td>
<td>80%</td>
<td>82%</td>
<td>(p = .302)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>86.6%</td>
<td>86.4%</td>
<td>(p = .761)</td>
</tr>
</tbody>
</table>

Evaluation Methods

- **Participants**: 38 RNs were employed at the start of the intervention, 35 were employed at the end, and 4 RNs were hired within the data collection period for a turnover rate of 7 full time nurses; mean years of experience as an RN was 5.2 years; mean years worked as an RN at the facility was 2.8 years
- Changes in Charting: Chi-square analyses were used to evaluate changes from pre-intervention to the post-intervention/data collection period in each HAPU audit component; statistically significant changes were noted in the following areas:
  - Documentation of Braden scale on admission and every shift increased from 89% to 97% (p = .000); Wound prevention supplies in room and in use with documentation increased from 92% to 95% (p = .002)
  - Documentation of full body assessment on admissions and transfers decreased from 95% to 90% (p = .000); Ear protectors applied and documented decreased from 85% to 77% (p = .000)
  - An insignificant increase in documentation completeness was noted in second nurse co-sign of assessment on admission and WDLA documented for each wound and RCR completed; An insignificant decrease was seen with documentation of skin condition behind ears; Oxygen in use with delivery method documentation, documentation of patient turned every two hours, and wound nurse consult for Braden <14 did not change
- Frequency distributions and descriptive statistics were analyzed following the completion of the post-intervention survey, which evaluated nurses’ opinions about reminders and nursing documentation:

Survey Responses

- Which was more helpful?
- Why are nursing documentation components missed?

Conclusions and Discussion

- Minimal evidence is available regarding the quality of nursing documentation. The findings of this EBP project further highlight the problem of non-compliance with nursing documentation and factors that are believed to contribute to incompleteness.
- Integral changes within electronic documentation systems can mitigate deficiencies by IT specialists partnering with nurses and to gain an understanding of the workflow.
- Limitations: 7 nurse turnover during implementation period with 4 new, full-time hires; Poor RN attendance at monthly unit meetings with <50% of staff present; Inconsistent staff members conducting audits; Inability to initiate or reschedule separate education sessions; EBP project manager was unable to access EPIC for educational sessions

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PICOT Question

For registered nurses working on a 31-bed IMCU, does a visual reminder, compared to current practice, improve hospital-acquired pressure ulcer (HAPU) documentation monthly audit scores over 3 months?